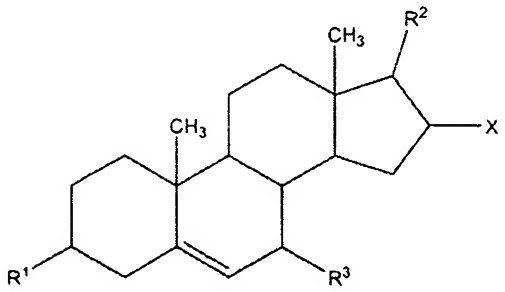
AMENDMENTS TO THE CLAIMS

1. (Original) A method for reducing pulmonary arterial pressure (PAP), comprising introducing an effective amount of DHEA, DHEAS, DHEA analog, or DHEA derivative into the pulmonary airways of a mammal.

2. (Currently amended) The method of claim 1, wherein said DHEA, DHEAS, DHEA analog, or DHEA derivative has the general formula :



wherein X is H or halogen; R^1 R^2 and R^3 are independently =O, -OH, -SH, H, halogen, a pharmaceutically acceptable ester, a pharmaceutically acceptable thioester, a pharmaceutically acceptable ether, a pharmaceutically acceptable thioether, a pharmaceutically acceptable inorganic ~~esters~~ ester spirooxirane, spirothirane, $-OSO_2R^5$, ~~or~~ $-OPOR^5R^6$, or a pharmaceutically acceptable monosaccharide, disaccharide or oligosaccharide; wherein R^5 and R^6 are independently -OH, a pharmaceutically acceptable ~~esters~~ ester, ~~or~~ a pharmaceutically acceptable ~~ethers~~ ether; ~~and~~ or a pharmaceutically acceptable ~~salts~~ salt, and alternatively wherein R^2 and R^3 ~~may be~~ are selected from the group consisting of a methyl group, a partially or completely dehydrogenated aliphatic hydrocarbon chain of 2-14 carbons, and a saturated aliphatic hydrocarbon chain of 2-14 carbons.

3. (Original) The method of Claim 2, wherein R^1, R^2, R^3, and X are selected from the group consisting of:

R^2 is =O, R^3 and X are each H and R^1 is =O, -OH, a pharmaceutically acceptable esters ester thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is =O, R^3 is H, X is halogen and R^1 is =O, -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is =O, R^3 and X are each H and R^1 is - SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is =O, R^3 is H. X is halogen and R^1 is -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is =O, X is H and R^1 and R^3 are independently =O, -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is =O, X is halogen and R^1 and R^3 are independently =O, -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is =O, X is H and R^1 and R^3 are independently -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is =O, X is halogen and R^1 and R3 are independently - SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -OH, R^3 and X are each H and R^1 is =O -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts; R^2 is -OH, R^3 is H, X is halogen and R^1 is =O -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts; R^2 is -OH, R^3 and X are each H and R^1 is -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -OH, R^3 is H, X is halogen and R^1 is -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -OH, X is H and R^1 and R^3 are independently =O, -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is -OH, X is halogen and R^1 and R^3 are independently =O, -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is -OH, X is H and R^1 and R^3 are independently -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -OH, X is halogen and R^1 and R^3 are independently -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, R^3 and X are each H and R^1 is =O -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, R^3 is H, X is halogen and R^1 is =O -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, R^3 and X are each H and R^1 is -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts

R^2 is -SH, R^3 is H, X is halogen and R^1 is -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, X is H and R^1 and R^3 are independently =O, - OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, X is halogen and R^1 and R^3 are independently =O, -OH, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, X is H and R^1 and R^3 are independently -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

R^2 is -SH, X is halogen and R^1 and R^3 are independently -SH, pharmaceutically acceptable thioesters thereof, pharmaceutically acceptable thioethers thereof or pharmaceutically acceptable salts;

X is H and R^1, R^2 and R^3 are independently =O, -OH, a sugar residue, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts, wherein at least one of R^1, R^2 and R^3 is a sugar residue;

X is halogen and R^1, R^2 and R^3 are independently =O, -OH, a sugar residue, pharmaceutically acceptable esters thereof, pharmaceutically acceptable ethers thereof or pharmaceutically acceptable salts, wherein at least one of R^1, R^2 and R^3 is a sugar residue;

X is H and R^1, R^2 and R^3 are independently =O, -OH, pharmaceutically acceptable inorganic esters thereof or pharmaceutically acceptable salts, wherein at least one of R^1, R^2 and R^3 is an inorganic ester;

X is halogen and R^1, R^2 and R^3 are independently =O, -OH, pharmaceutically acceptable inorganic esters thereof or pharmaceutically acceptable salts, wherein at least one of R^1, R^2 and R^3 is an inorganic ester.

4. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein said mammal is a human.

5. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein said introducing is by inhalation, pulmonary administration, inspiration, aerosolization or nebulization.

6-9. (Canceled)

10. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein said effective amount of DHEA, DHEAS, DHEA analog, or DHEA derivative is from about 0.01 mg per kg body weight to about 100 mg per kg body weight per day.

11. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein said introducing an effective amount of DHEA, DHEAS, DHEA analog, or DHEA derivative is by chronic administration.

12. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein said introducing an effective amount of DHEA is by intermittent administration.

13. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein the DHEA, DHEAS, DHEA analog, or DHEA derivative is in the form of a dry particulate.

14. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, wherein the DHEA, DHEAS, DHEA analog, or DHEA derivative is in the form of an aerosol.

15. (Original) The method of Claim 14, wherein said effective amount of DHEA, DHEAS, DHEA analog, or DHEA derivative is from about 0.01 mg per kg body weight to about 100 mg per kg body weight per day.

16. (Currently amended) The method of ~~any one of the above claims~~ Claim 1, further comprising administration of an antibacterial agent, antifungal agent, antiviral agent, vasodilator, bronchodilator or anti-inflammatory agent.

17-21. (Canceled)

22. (Currently amended) A metered dose inhaler comprising at least one compound selected from the group consisting of: DHEA, DHEAS, a DHEA analog, ~~or~~ and a DHEA derivative.

23. (Currently amended) The metered dose inhaler of Claim 22, further comprising an antibacterial agent, antifungal agent, antiviral agent, bronchodilator, vasodilator or anti-inflammatory agent.

24-29. (Canceled)

30. (Currently amended) A dry powder inhaler comprising a formulation comprising at least one compound selected from the group consisting of: DHEA, DHEAS, a DHEA analog, ~~or~~ and a DHEA derivative.

31. (Original) The inhaler of Claim 30, wherein the DHEA formulation has a particle size of about 0.5μm to about 5μm.

32. (Currently amended) A method of ~~treatment of~~ treating pulmonary artery hypertension in an individual, comprising ~~the~~ administration of an effective amount of a composition comprising at least one compound selected from the group consisting of: DHEA, DHEAS, a DHEA analog, ~~or~~ and a DHEA derivative.

33. (Original) The method of Claim 32, wherein said individual is a mammal.

34. (Currently amended) The method of ~~any one of Claims 32-33~~ Claim 32, wherein said administration is oral, pulmonary or by injection.

35-36. (Canceled)

37. (Currently amended) The method of Claim ~~36~~ 34, wherein said pulmonary administration ~~is by use of~~ comprises an aerosol.

38. (Currently amended) The method of ~~any one of Claims 36-37~~ Claim 32, wherein said pulmonary artery hypertension is caused by disorders of the respiratory system.

39. (Currently amended) The method of ~~any one of Claims 36-38~~ Claim 32, wherein said pulmonary artery hypertension is caused by chronic hypoxia.

40. (Original) The method of Claim 39, wherein said pulmonary artery hypertension is chronic hypoxic pulmonary artery hypertension.

41. (Currently amended) The method of ~~any one of Claims 33-40~~ Claim 33, wherein said mammal is a human.

42. (Currently amended) A method of reversing the severity of pulmonary artery hypertension in an individual, comprising administering an effective amount of at least one compound selected from the group consisting of: DHEA, DHEAS, a DHEA analog, ~~or~~ and a DHEA derivative.

43. (Currently amended) A method of decreasing RV wall thickness in a mammal, comprising administering an effective amount of a composition comprising at least one compound selected from the group consisting of: DHEA, DHEAS, a DHEA analog, ~~or~~ and a DHEA derivative.